



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,406	06/19/2001	Benjamin Lee Hertzler	06074 USA	2276
23543	7590	04/07/2004	EXAMINER	
AIR PRODUCTS AND CHEMICALS, INC. PATENT DEPARTMENT 7201 HAMILTON BOULEVARD ALLENTOWN, PA 181951501			JOHNSON, JONATHAN J	
			ART UNIT	PAPER NUMBER
			1725	
DATE MAILED: 04/07/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/884,406	<b>Applicant(s)</b> HERTZLER, BENJAMIN LEE
	<b>Examiner</b> Jonathan Johnson	<b>Art Unit</b> 1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  
 If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  
 If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  
 Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)  Responsive to communication(s) filed on 4-11-03.  
2a)  This action is **FINAL**.      2b)  This action is non-final.  
3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)  Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) 2-4,6,8-10,14-16,18 and 20 is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1,5,7,11-13,17 and 19 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) 1-20 are subject to restriction and/or election requirement.

**Application Papers**

9)  The specification is objected to by the Examiner.  
10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>6-19-01; 4-11-03</u> .	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____.
--	--

**DETAILED ACTION*****Election/Restrictions***

This application contains claims directed to the following patentably distinct species of the claimed invention:

- I. Claims 2-4, and 14-16 are drawn to the purification media.
- II. Claims 8 and 9 are drawn to the storage/dispensing vessel.
- III. Claims 5, 7, 17, and 19 are drawn to the purifier conduit.
- IV. Claims 6, 10, 18 and 20 are drawn to the arrangement of the purification media.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claims 1 and 11-13 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Geoffrey Chase on 3-11-04 a provisional election was made with traverse to prosecute the invention of Group III, claims 1, 5, 7, 11-13, 17, and 19. Affirmation of this election must be made by applicant in replying to this Office action. Claims 2-4, 6, 8-10, 14-16, 18, and 20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 1, 5, 7, 11-13, 17, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,125,131 (Brandes et al.). With respect to Claim 1, Brandes et al. teach a storage and dispensing vessel having a gas outlet conduit and an interior section containing a solid-phase physical sorbent medium having physically sorptive affinity for a gas, said sorbent medium having said gas physically sorptively loaded on said sorbent medium (Figure 1, item 16); and a purifier comprising at least one layer of purification media located in the interior section of said storage and dispensing vessel wherein said purification media is located adjacent to said gas outlet conduit of said vessel and is adapted to provide that any gas desorbed from said sorbent medium must pass through and contact said purification media prior to exiting said vessel through said outlet conduit (Figure 1, items 19 and 32).

With respect to Claim 5, the teachings of Brandes et al. are the same as relied upon in the rejection of Claim 1. Brandes et al. teach said purifier includes a purifier conduit, one end of said purifier conduit being sealingly attached to said gas outlet conduit of said vessel, and a second end of said purifier conduit open to said interior section of said vessel containing said solid-phase physical sorbent medium, said purifier conduit including said at least one layer of purification media disposed in said purifier conduit, whereby any desorbed gas withdrawn from said vessel must pass through said purifier conduit from said end of said purifier conduit open to said interior section containing said solid-phase physical sorbent medium through to said end

of said purifier conduit sealingly attached to said gas outlet conduit (Figure 1, items 19 and 32).

With respect to Claim 7, the teachings of Brandes et al. are the same as relied upon in the rejection of Claim 1. Brandes et al. teach one end of said purifier conduit being sealingly attached to said gas outlet conduit of said vessel, and a second end of said purifier conduit open to said interior section of said vessel containing said solid-phase physical sorbent medium, said purifier conduit including said at least one layer of purification media disposed in said purifier conduit, and wherein said purifier further includes at least one layer of purification media adjacent to and covering said second end of said purifier conduit, whereby any desorbed gas withdrawn from said vessel must first pass through and contact said at least one layer of purification media adjacent to said second end of said purifier conduit and then through said purifier conduit to reach said outlet conduit of said vessel (Figure 1, items 19 and 32).

With respect to Claim 11, Brandes et al. teach an adsorbent based gas delivery system comprising: (a) a storage and dispensing vessel having a gas outlet conduit and an interior section containing a solid-phase physical sorbent medium having physically sorptive affinity for a gas, said sorbent medium having said gas physically sorptively loaded on said sorbent medium (Col. 5, ll. 55-65); and (b) a purifier comprising a purification media generally homogeneously mixed with said sorbent medium in the interior section of said storage and dispensing vessel such that substantially any gas desorbed from said sorbent medium must pass through and contact said purification media prior to exiting said vessel through said outlet conduit (col. 6, ll. 29-34).

With respect to Claim 12, Brandes et al. teach a storage and dispensing vessel having a gas outlet conduit and an interior section containing a solid-phase physical sorbent medium having physically sorptive affinity for a gas, said sorbent medium having said gas physically sorptively loaded on said sorbent medium (Figure 1, item 16); (b) a purifier comprising at least one layer of purification media located in the interior section of said storage and dispensing vessel wherein said purification media is located adjacent to said gas outlet conduit of said vessel and is adapted to provide that any gas desorbed from said sorbent medium must pass through said purification media prior to exiting said vessel through said outlet conduit (col. 5, ll. 15-25); and (c) said storage and dispensing vessel having a gas inlet conduit for supplying said gas from an external source into said vessel, said gas inlet conduit separate from said gas outlet conduit (Figure 1, items 32 and 19).

With respect to Claim 13, the teachings of Brandes et al. are the same as relied upon in the rejection of Claim 12. Brandes et al. teach wherein said gas inlet conduit is adapted to provide that said inlet gas does not pass through said purifier (Figure 1, items 32 and 19).

With respect to Claim 17, the teachings of Brandes et al. are the same as relied upon in the rejection of Claim 12. Brandes et al. teach said purifier includes a purifier conduit, one end of said purifier conduit being sealingly attached to said gas outlet conduit of said vessel, and a second end of said purifier conduit open to said interior section of said vessel containing said solid-phase physical sorbent medium, said purifier conduit including said at least one layer of purification media disposed in said purifier conduit, whereby any desorbed gas withdrawn from

said vessel must pass through said purifier conduit from said end of said purifier conduit open to said interior section containing said solid-phase physical sorbent medium through to said end of said purifier conduit adjacent to said gas outlet conduit (Figure 1, item 19). .

With respect to Claim 19, the teachings of Brandes et al. are the same as relied upon in the rejection of Claim 12. Brandes et al. teach said purifier includes a purifier conduit, one end of said purifier conduit being sealingly attached to said gas outlet conduit of said vessel, and a second end of said purifier conduit open to said interior section of said vessel containing said solid-phase physical sorbent medium (Figure 1, item 19), said purifier conduit including said at least one layer of purification media disposed in said purifier conduit, and wherein said purifier further includes at least one layer of purification media adjacent to and covering said second end of said purifier conduit, whereby any desorbed gas withdrawn from said vessel must first pass through and contact said at least one layer of purification media adjacent to said second end of said purifier conduit and then through said purifier conduit to reach said outlet conduit of said vessel (Figure 1, item 11).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 571-272-1177. The examiner can normally be reached on M-Th 7AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Johnson  
Examiner  
Art Unit 1725

jj